

REMARKS

Claims 1-66 are currently pending in the application. No new matter has been added.

A. Claim Rejections under 35 U.S.C. § 102

Claim 1-9, 11, 14-58, 60-63, 65 and 66 stand rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,937,165 issued to Schwaller et al. (Schwaller).

Claims 1-9, 11, 14-58, 60-63, 65, and 66

For claim 1, there are one or more claimed limitations that are not disclosed, taught or suggested by the cited references. Claim 1 recites the following limitations:

- a) receiving a workload to be executed;
- b) executing the workload on a single node before the workload is sent to a plurality of nodes for execution;
- c) tracing the execution of the workload to identify a potential data conflict;
- d) based on a result of the tracing, predicting the behavior of the workload across the plurality of nodes; and
- e) outputting the prediction.

1. Claims 14, 32-36, 40, and 54 also recite “tracing the execution of the workload to identify a **potential data conflict**.” According to the Office Action, fig. 5A and column 9, lines 46 through column 10, line 39 allegedly disclose the above limitation. Applicants respectfully submit that Schwaller does not disclose or suggest this limitation.

Schwaller is directed toward testing communication networks to obtain **timing measurements** in order to analyze network performance (Abstract and col. 9, line 35). The cited passage in Schwaller discloses test scripts that consist of commands to send and receive data and generate **timing records** to capture the performance fluctuations with each transaction (table 2, col. 9 lines 46-50, col. 10, line 25 , and col. 10, line 39-46). The focus of Schwaller is on the

performance of a network in regards to the time that it takes for transactions to execute between nodes. There is nothing in the cited passage of Schwaller that discloses or suggests potential data conflict, much less, identifying a potential data conflict by tracing an execution of workload.

Also according to the Final Office Action, Schwaller discloses that the test is monitored to identify conflicts, which allegedly involves identifying data conflicts. Applicant respectfully disagrees. Schwaller makes no mention of identifying data conflicts. Schwaller teaches monitoring a network to determine the duration of time for nodes to execute transactions. Instead of identifying data conflicts, Schwaller provides two variations of scripts to obtain time measurements, neither of which involve determining a data conflict. Schwaller tests the performance of the network with scripts containing either short or long connections in an effort to vary the impact of the start-up/takedown overhead on the duration of execution of the test script (col. 9 lines 50 through col. 10 line 21). Thus, Schwaller does not disclose or suggest determining a potential data conflict, much less, determining a potential data conflict by tracing an execution of workload.

For these additional reasons, Applicant respectfully submits that claims 14, 32-36, 40, and 54, and their respective dependent claims, are patentable over Schwaller under 35 U.S.C. § 102.

Claim 4

2. Claim 4 recites “the types of data conflicts comprises a read-write conflict.” According to the Office Action, table 2 allegedly discloses the above limitation. Applicants respectfully submit that Schwaller does not disclose or suggest this limitation. Table 2 discloses example test scripts that include endpoint nodes sending and receiving records to mimic application traffic for performance testing. Hereagain, there is no indication of a test for a data conflict, much less a read-write conflict. The focus of the scripts is on sending and receiving of data and there is no check for whether there is a data conflict in regards to the records being sent and received. Thus, claim 4 does not disclose “the types of data conflicts comprises a read-write conflict.” For these additional reasons, Applicant respectfully submits that claim 4 is patentable over Schwaller under 35 U.S.C. § 102.

Claims 7, 57, and 62

3. Claims 7, 57, and 62 recites “the potential data conflicts are at the granularity of a data block.” According to the Office Action, table 2 allegedly discloses the above limitation. Applicants respectfully submit that Schwaller does not disclose or suggest this limitation. Schwaller is silent with respect to data blocks. Schwaller discloses that data sent and received is preferably stream oriented, not record oriented (Col. 9, lines 47-50). The only other granularity discussed in table 2 is at the packet level with a packet transmit script. Thus, claims 7, 57, and 62 do not disclose “the potential data conflicts are at the granularity of a data block.” For these additional reasons, Applicant respectfully submits that claims 7, 57, and 62 are patentable over Schwaller under 35 U.S.C. § 102.

Claim 5

4. Claim 5 recites “the types of data conflicts are based upon types of operations needed to resolve the data conflicts.” According to the Office Action, table 2 allegedly discloses the above limitation. Applicants respectfully submit that Schwaller does not disclose or suggest this limitation. Schwaller is silent with respect to resolving the data conflicts. As discussed above, Applicants respectfully submit that Schwaller does not disclose a data conflict. To the extent the Examiner considers a timing conflict to be a data conflict, Schwaller does not disclose a resolution for a timing conflict in the cited section. Table 2 discloses test scripts for the system including send and receive commands, and the cited section does not disclose a resolution for the timing conflicts discovered with the test script. Thus, claim 5 does not disclose “the types of data conflicts are based upon types of operations needed to resolve the data conflicts.” For these additional reasons, Applicant respectfully submits that claim 5 is patentable over Schwaller under 35 U.S.C. § 102.

B. Claim Rejections under 35 U.S.C. § 103

Claims 10 and 12 stand rejected under 35 U.S.C. 103 as being unpatentable over Schwaller in view of U.S. Patent No. 6,154,813 issued to Martin et al. (Martin).

Claims 10 and 12

1. Applicant submits that claims 10 and 12 are patentable over Schwaller in view of Martin. As discussed, Schwaller does not disclose or suggest the limitations in claim 9 from which claims 10 and 12 depend. Applicants assert that Martin fails to remedy the deficiencies present in Schwaller.

Martin is directed toward a cache management system for buffering media files being simultaneously accessed by multiple clients (Abstract). Martin teaches a cache management strategy for replacement of data in a cache for a continuous media server, and does not require or teach the execution of a workload on a node to accomplish the cache management strategy. Thus, Martin does not disclose execution of the workload to identify a potential data conflict nor executing the workload on a single node before the workload is sent to a plurality of nodes for execution.

For at least the foregoing reasons, Applicant respectfully submits that claims 10 and 12 are patentable over Schwaller in view of Martin under 35 U.S.C. § 103.

Claims 13, 59, and 64

Claims 13, 59, and 64 stand rejected under 35 U.S.C. 103 as being unpatentable over Schwaller in view of U.S. Patent No. 6, 542, 930 issued to Auvenshine et al. (Auvenshine).

1. Applicant submits that claims 13, 59, and 64 are patentable over Schwaller in view of Auvenshine. As discussed, Schwaller does not disclose or suggest the limitations in claims 1, 54, and 32 from which claims 13, 59, and 64 depend. Applicants assert that Auvenshine fails to remedy the deficiencies present in Schwaller.

Auvenshine is directed toward a distributed file system to improve file distribution, user access, server workload and the like (Abstract). Auvenshine does not disclose execution of the workload to identify a potential data conflict nor executing the workload on a single node before the workload is sent to a plurality of nodes for execution.

For at least the foregoing reasons, Applicant respectfully submits that claims 10 and 12 are patentable over Schwaller in view of Auvenshine under 35 U.S.C. § 103.

CONCLUSION


Based on the foregoing, all remaining claims are believed in condition for allowance. If the Examiner has any questions or comments regarding the remarks, please contact the undersigned at the number listed below.

The Commissioner is authorized to charge any fees due in connection with the filing of this document to Bingham McCutchen's Deposit Account No. 50-4047, referencing billing number 7011112001. The Commissioner is authorized to credit any overpayment or to charge any underpayment to Bingham McCutchen's Deposit Account No. 50-4047, referencing billing number 7011112001.

Respectfully submitted,

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By: _____


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